

CLAIMS

What is claimed is:

1. An electronic control system for a personal mobility vehicle, the system comprising:
at least one input; and
at least one output, the input being adapted to be programmably mapped to the output according to a user's preferences.
2. The system of claim 1, further comprising a programmable processor for controlling the output in accordance with a signal from the input, and wherein the input is a switched input on a hand control module of a personal mobility vehicle.
3. The system of claim 2, wherein the output is a power seat module.
4. The system of claim 2, wherein the output is an environmental control module.
5. The system of claim 4, wherein the output is a motor control module and the processor controls a parameter of the motor control module in accordance with the signal from the switched input.
6. The system of claim 1, further including a plurality of switched inputs including at least one input and a plurality of outputs including at least one output, wherein different switched inputs are adapted to be programmably assigned to control different outputs.
7. The system of claim 6, wherein at least one output controls the operation of a power seat system of the personal mobility vehicle.

8. The system of claim 6, wherein the at least one output controls an accessory function.

9. The system of claim 1, wherein the at least one input is a switched input for controlling a personal mobility vehicle light, the switched input being adapted to be programmably mapped to control the output instead of the light.

10. The system of claim 1, wherein the at least one input is a switched input for controlling another output that is infrequently used, the switched input being adapted to be programmably mapped to control the at least one output instead of the infrequently used output.

11. The system of claim 1, further comprising:
a processor;
another output that is infrequently used, the processor being for controlling the infrequently used output in response to a signal from the switched input; and
a hand control module, the at least one input being a switched input on the hand control module, the hand control module further comprising:
a visual graphic; and
an analog input for navigating through the visual graphic to control the at least one output, the processor being programmable to map the switched input to control the at least one output instead of the infrequently used output.

12. The system of claim 1, further comprising a programmable processor and a memory with software embedded in the memory, the software being adapted to be configured so that the processor can map the input to control the output.

13. The system of claim 12, wherein a software profile is created for a particular user.

14. An electronic control system for a personal mobility vehicle, the system comprising:

at least one user interface object;

a plurality of targets; and

a processor that is programmable to send an action message from the input to a desired one of the targets.

15. The system of claim 14, wherein the user interface object is a switched input, the processor being programmable to cause the switched input to act as either a latched input or an unlatched input.

16. A personal mobility vehicle comprising:

a control system;

at least one input; and

an output, the input being programmably mapped to the output so that commonly used outputs can be performed while minimizing the number of sequences of input commands required to perform the output.

17. The vehicle of claim 16, wherein the output is a control module.

18. The vehicle of claim 16, further comprising a connector for attaching an external device to the vehicle, the inputs being mapped to the outputs with the external device.

19. The vehicle of claim 18, wherein the external device is a personal computer including an application capable of mapping the inputs to the outputs.

20. The vehicle of claim 18, wherein the external device is a handheld device including an application capable of mapping the inputs to the outputs.

21. A method for mapping personal mobility vehicle inputs to outputs, the method comprising the steps of:

a) providing a personal mobility vehicle having inputs, outputs, and a programmable processor for performing operations or control functions of the outputs in response to signals from the inputs;

b) selecting a desired input;

c) assigning an operation or control function to the desired input; and

d) associating an output with the assigned operation or control function.

22. The method of claim 21, wherein steps c) and d) are combined into a single step.

23. The method of claim 21, wherein the selecting step comprises the steps of:

i) entering a programming mode; and

ii) depressing the desired input.

24. The method of claim 21, further comprising the step of providing a program editor, wherein the program editor is a software application.

25. The method of claim 24, wherein the selecting step comprises the steps of:

i) providing a list of inputs; and

ii) selecting an input from the list.

26. The method of claim 24, wherein the selecting step comprises the steps of:

- i) providing a field; and
- ii) entering an input into a field.

27. The method of claim 24, wherein the assigning step comprises the steps of:

- i) providing a list of operations or control functions; and
- ii) selecting an operation or control function from the list.

28. The method of claim 24, wherein the assigning step comprises the steps of:

- i) providing a field; and
- ii) entering an operation or control function into the field.

29. The method of claim 24, wherein the associating step comprises the steps of:

- i) providing a list of outputs; and
- ii) selecting an output from the list.

30. The method of claim 24, wherein the associating step comprises the steps of:

- i) providing a field; and
- ii) entering an output into the field.

31. The method of claim 24, wherein the software application is integral with the personal mobility vehicle.

32. The method of claim 31, wherein the software application is stored in an external device that is adapted to be removably connected to the personal mobility vehicle.

33. The method of claim 32, wherein the external device is in the form of a handheld pendant.

34. The method of claim 32, wherein the external device is in the form of a personal computer.

35. The method of claim 24, wherein the software is a user-friendly windows application software.

36. The method of claim 21, wherein the operations or control functions include action messages and parameter values.

37. The method of claim 21, wherein the outputs include one or more control modules.